

SuperYacht

industry

Royal Hakvoort's Top Five II

EXCEPTIONNALLY SPACIOUS LIVING AREAS

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MARCEL ONKENHOUT SHARES HIS VISION

The Miracle project

EMOTIONAL INTELLIGENCE FOR YACHTS



Marex 3D joystick system.

Control at your fingertips

Docking and undocking your vessel in narrow or confined spaces can be challenging – even if you're an experienced boater. Even in the midst of wind and waves, you must operate the steering and the main and auxiliary drives at the same time.

ALL PHOTOS COURTESY OF EMERSON.

The Marex 3D joystick system simplifies this process, enabling boaters of any experience level to handle these operations with one hand. The system makes it easy to manoeuvre

yachts, speedboats and other vessels in narrow spaces. It also provides boaters with intelligent control and dynamic positioning features, making boating a breeze.

Improved conventional controls

In a traditional control system, turning the wheel of a yacht or speedboat moves the rudder in the water. This steering method >>

When you move the joystick, the system intelligently decides whether it needs to engage the bow thruster, the stern thruster, or both.

relies on water continuously running across the rudder, making navigation at slower speeds or in harbors much more difficult. To overcome this challenge, many boats utilise thrusters in addition to the main propulsion system. However, handling the steering wheel, engaging both the engine and thrusters and contending with the wind and current is a lot for one person to handle – especially in tight or narrow spaces.

The AVENTICS™ Marex 3D joystick system overcomes these issues by bringing all the controls together in one place, enabling boaters of any skill level to control their vessel using an ergonomically designed joystick. As the boater pushes or twists the joystick, the boat mirrors the movement exactly by managing the engines and thrusters. At the same time, the system automatically compensates for unwanted movements due to crosswind or current using a sophisticated vector control unit and integrated electronic compass.

The Marex 3D joystick system is based on the Marex OS remote control system for reversing gear systems. When combined with an existing Marex OS system, boaters can operate Marex 3D as a standalone joystick, or they can pair the joystick with the main engine controls. In thruster mode, the joystick operates the thrusters, while the engine remains under the control of the Marex OS control head. In 3D mode, the joystick controls all driving units: thrusters, engines and steering gear. “When you move the joystick, the system intelligently decides whether it needs to engage the bow thruster, the stern thruster, or both,” explains Steve Vincent, Manager of Marine Business Development at Emerson. “Or the system may decide it also needs to engage the gearbox. The intelligence is built in, and so the system will automatically coordinate all the driving units based on the desired result.”

Unlocking Additional Benefits

On top of its standard control features, including the ergonomic joystick, vector control unit and integrated compass, the Marex 3D joystick system offers several dynamic positioning capabilities. First, with the heading hold feature, the system maintains the boat’s heading while allowing the vessel to drift, allowing boaters to enjoy the view of a coastline or sunset. It will even maintain the desired heading in the midst of waves and wind. Second, a virtual anchor will hold the boat within a defined circle as if the boat is attached to an invisible anchor chain. At the same time, the Marex system actuates the engines in an intelligent way to minimize fuel consumption and noise. And third, whether a boater is waiting at a drawbridge or navigating a narrow port



Yachts like the Jack of Hearts incorporate the Marex 3D joystick system, which comes in handy while waiting for drawbridges or at fuel docks.



Dr. Sternlieb takes advantage of the Marex 3D joystick's dynamic positioning capabilities on his yacht.



The Marex 3D joystick system takes the stress out of manoeuvring boats in tight spaces.



All Marex 3D controls are housed in a box that can be tucked away in the engine room.

entrance, the system's 3D hold mode maintains both the heading and position of the boat with perfect accuracy. "In this mode, the deviation can be very small depending on the available thrust and duty cycle of the thrusters," Mr Vincent explains. "In one application, I activated the system while I was in 20-knot winds, and we never deviated more than a few feet."

Together, these dynamic positioning capabilities offer skippers of yachts, speedboats and other pleasure vessels a number of benefits including:

Outstanding precision – A smart control coordinates the drives, holding the boat's heading and compensating for the yaw caused by wind or current.

Intuitive control – The boat follows the movement of the joystick exactly. Simplified manoeuvring - The system eliminates the need to handle the wheel and control levers at the same time, facilitating navigation in ports and harbours.

Cost and space savings – With Marex 3D, additional control elements for transverse thrusters are no longer necessary.

Control flexibility – Marex 3D is a flexible solution for vessels of all sizes. It lets boaters integrate up to six joystick stations and retrofit existing Marex systems.

Stress-free boating

"Having recently owned a yacht with pod propulsion equipped with dynamic positioning, I was surprised to find this technology is also available for shaft-driven yacht," says Jack Sternlieb, MD, owner and operator of the Jack of Hearts. "I added the Marex 3D joystick to my new yacht and have been extremely pleased with the dynamic positioning capabilities. These features work well whenever I'm waiting at drawbridges or fuel docks, or when the USCS boards for a routine inspection. I highly recommend this technology especially for owner operators, as it will help make boating a stress-free process."

Easy Upgrading

The Marex 3D joystick system is a supplement to the Emerson AVENTICS Marex OS control system, which was famously installed on the boats featured in National Geographic's Wicked Tuna television series. Emerson recently modified its Marex 3D joystick for easier integration into vessels with a Marex OS system. In these cases, the joystick can be retrofitted with minimal wiring effort, reducing both installation and startup times.

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